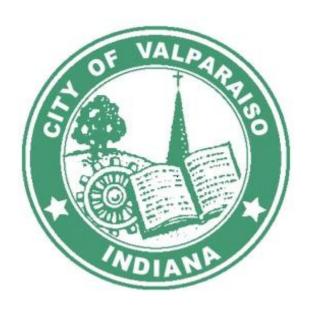
CLEAN

(Comprehensive Local Environmental Action Network)

COMMUNITY CHALLENGE

UPDATE: 10 JANUARY 2009



QUALITY OF LIFE PLAN

City of Valparaiso – Quality of Life Plan

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I. MISSION STATEMENT

The City of Valparaiso and its citizens are dedicated to enhancing the quality of life for members of the community by committing to:

- Compliance with requirements and voluntary commitments.
- Pollution prevention.
- Continuous environmental improvement.
- Sharing environmental decisions and performance information with the community.
- Energy and resource efficiency of local government.
- Community education.

A COPY OF THE MISSION STATEMENT, SIGNED AS AN EXECUTIVE ORDER, IS INCLUDED WITHIN THIS DOCUMENT AS APPENDIX A.

II. RESPONSIBILITIES

Mayor

As the senior member of the City of Valparaiso administration, the mayor (or his designated representative) serves as a liaison between the city administration and local government (City Council) as well as Valparaiso's business community.

The mayor is also responsible for adopting the Quality of Life Plan's mission statement as an executive order.

Stakeholder Committee Leader

The stakeholder committee leader (SCL) is a liaison between the stakeholder committee and the city administration. The committee leader has authority to take action based on the committee's recommendations.

The SCL's responsibilities include (but are not limited to):

- Coordinating the efforts of the stakeholder committee.
- Developing, implementing and maintaining the Quality of Life Plan, through committee, in accordance with CLEAN requirements.
- Reporting to the city council, via the mayor on the status of the city's Quality of Life Plan.
- Ensuring any policies, procedures or regulations developed as a result of the Quality of Life Plan are adopted and enacted.

Stakeholder Committee Leader:

Bill Oeding Director of Public Works 406 Don Hovey DR Valparaiso, Indiana 46383 TEL: 219.462.4612 FAX: 219.464.2063

Email: boeding@netnitco.net

Stakeholder Committee

The City of Valparaiso's CLEAN (Comprehensive Local Environmental Action Network) Community Challenge stakeholder committee's responsibilities include (but are not limited to):

- Instituting the Quality of Life Plan and determining the city's 5 initial goals and their respective requirements in accordance with the CLEAN Community Challenge.
- Creating and maintaining a mission statement.
- Assigning clear roles and responsibilities to implement, educate, monitor and maintain Quality of Life Plan procedures and goals.
- Develop, implement and document action plans to achieve the city's goals and methods to ensure success.
- Sharing environmental decisions and performance information with the community.
- Compliance with requirements and voluntary commitments.

The stakeholder committee members are:

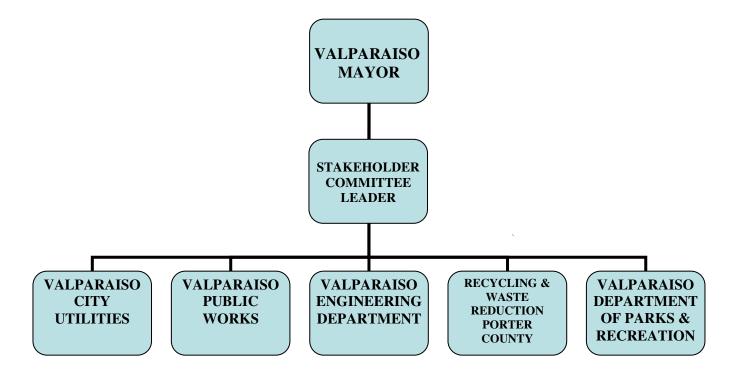
- 1. Therese Davis, Director, Recycling & Waste Reduction District of Porter County.
- 2. Steve Dolak, Recycling & Waste Reduction District of Porter County.
- 3. Matt Kras, City of Valparaiso Storm Water Engineer.
- 4. Chuck McIntire, Distribution Manager, Valparaiso City Utilities.
- 5. Jim Pingatore, Water Conservation Planner, Valparaiso City Utilities.
- 6. Nate McGinley, City of Valparaiso Engineering Department.
- 7. Steve Martinson, Horticulturist, City of Valparaiso Parks Department.
- 8. Angie Whisnant, Assistant Director, City of Valparaiso Parks Department.
- 9. Bill Oeding, Director, City of Valparaiso Public Works.
- 10. Tony Reid, Assistant Director, City of Valparaiso Public Works.

The stakeholder committee members list is preliminary, and may be changed, added to or removed from, as the plan develops or the needs of the City of Valparaiso change.

Audit Team

The stakeholder committee will serve as the Quality of Life Plan audit team and will evaluate the Quality of Life Plan annually in accordance with IDEM CLEAN requirements. The audit will be conducted within the first quarter of each year with an IDEM representative present. With the assistance of the IDEM representative the stakeholder committee will also conduct an Annual Performance Report (APR) to evaluate the effectiveness of the program.

Organizational Chart



III. ENVIRONMENTAL GOALS

Operation Activities

The following entities resolve to commit the operational assets required to achieve the City of Valparaiso's goals:

- Recycling and Waste Reduction District of Porter County-This entity is an agency dedicated to improving the environment and quality of life for Porter County residents by providing convenient, voluntary waste reduction services which include; Extensive education programs in schools and adult groups, through quarterly newsletters, publications, and commercials as well as many other types of advertising; Two composting sites for recycling yard waste; 7 drop off recycling centers for household recycling; Household hazardous waste, tire, appliance, electronic, and household battery recycling collection sites; NW Indiana Earth Day sponsor.
- Valparaiso City Utilities-Valparaiso City Utilities is comprised of two departments: the Water Department and the Water Reclamation Department. The Water Department provides safe drinking water to over 12,000 commercial, industrial, institutional and residential customers within the city and the Water Reclamation Department treats sanitary and storm water before discharging it into Salt Creek. The Water Department includes Operations and Laboratory, Distribution, Customer Service and Financial / Administration. The Water Reclamation Department includes Operations and Laboratory, Sewer, Maintenance and Administration.

- City of Valparaiso Parks Department-Valparaiso Parks and Recreation Department (VPRD) enhances the vitality of our community by promoting healthy lifestyles and enriching Valparaiso's unique character with exceptional park and recreational services. VPRD strives to set the standard for quality programs, parks and services through leadership, vision, innovation and dedication to work. The VPRD values environmental sustainability by making decisions that help protect, maintain and preserve our natural & developed resources.
- City of Valparaiso Engineering Department-General office activities, computer, telephone and copy machine use; purchasing; construction plan review and site inspection; drainage, storm, street, erosion / sediment control complaints and inspection; issuance of site work application, erosion control, right of way, and sanitary sewer permits; storm water and floodplain management; survey and design of city projects; coordination and management of new street design and infrastructure improvements.
- City of Valparaiso Public Works-ROW mowing; Snow plowing and street salting; Solid waste and recyclable collection; City tree removal, pruning and replacement; Yard waste collection; Appliance and scrap removal; Vehicle maintenance, Negotiating of street paving / crack sealing;

Identifying Aspects and Impacts

The stakeholder committee is tasked with identifying the aspects and impacts each department's operations have on the environment. This is accomplished through a close working relationship with IDEM through a site visit of municipal facilities and through the use of IDEM's *Environmental Impacts for Municipal Operations Database*. The stakeholder committee utilized this database of environmental impacts to determine the city's priority needs. Any aspects not represented within the database were added to the list of aspects and those that did not pertain to current operations were removed.

Prioritizing Aspects

After determining aspects and departmental requirements pertaining to them, prioritizing the aspects was required to establish the overall importance of each. This was accomplished by the committee evaluating each aspect based on the following criteria:

DEGREE OF IMPACT ON THE ENVIRONMENT

- 4 = Serious (likely to result in severe or widespread damage to human health or the environment)
- 3 = Moderate (may affect resources beyond the property line, correction will take planning and resources)
- 2 = Minor (may be self correcting or corrected easily and quickly with minimal time, effort, impact, and cost)
- 1 = No impact (unlikely to have an adverse impact on human health or the environment)

NATURAL RESOURCE DEPLETION

- 4 = Serious (likely to result in severe or widespread natural resource depletion)
- 3 = Moderate (likely to result in moderate natural resource depletion)
- 2 = Minor (likely to result in minor natural resource depletion)
- 1 = No impact (unlikely to have an adverse impact on human health or the environment)

RELEASE TO AIR, LAND, WATER

- 4 = Serious (likely to result in severe or widespread releases to air, land, water)
- 3 =Moderate (may affect resources beyond the property line, correction will take planning and resources)
- 2 =Minor (may be self correcting or corrected easily and quickly with minimal time, effort, impact and cost)
- 1 =No impact (unlikely to release to air land, water)

OPPORTUNITY TO REDUCE WASTE EMMISSIONS OR RELEASES

- 3 = High opportunity to reduce waste, emissions or releases
- 2 = Medium opportunity to reduce waste, emissions, or releases
- 1 = Low opportunity to reduce waste, emissions, or releases

After identifying operations and impacts from municipal operations, the stakeholder committee prioritized each of the aspects using the ranking criteria identified above. Any aspect receiving a total score of 10 or higher was determined to be significant.

Upon completion of the prioritization process the stakeholder committee decided on the five projects determined to be in the city's best interest. The projects were selected through a combination of city need and prioritization.

THE PRIORITIZED LIST OF ASPECTS INCLUDING EVALUATION CRITERIA AND RATING DEFINITIONS IS INCLUDED WITHIN THIS DOCUMENT AS APPENDIX B.

Identifying Objectives and Targets

After months of meetings, deliberations and consultations with IDEM, the stakeholder committee determined the five most prolific objectives for the City of Valparaiso to be:

Increase municipal solid waste (MSW) diversion to 70%
Initiate a fluorescent and mercury containing bulb disposal / recycling program Improve storm water management
Institute a sustainable landscape initiative through city regulation
Implement a comprehensive water conservation plan

The targets, legal requirements, action plans and all other necessary information required to meet the proposed objectives are included in Attachment C.

IV. IMPLEMENTATION AND OPERATION PROCEDURES

Emergency Preparedness and Response

Under the direction of Joe McLees, training officer for the City of Valparaiso's fire department, the city maintains qualified personnel in accordance with the National Incident Management System (NIMS).

Each respective department is responsible for drafting and maintaining an Emergency Action Plan dealing specifically with departmental emergencies. The Emergency Action Plan for each department is retained and maintained within each department. A safety officer is assigned in

each department to coordinate safety related concerns (MSDSs, safety training, control of training records, etc.).

For the purposes of this document the applicable departments and safety representatives are as follows;

City of Valparaiso Engineers	Matt Kras
Valparaiso City Utilities	Mark Carlo
City of Valparaiso Parks Department	Mitch Orsburn
City of Valparaiso Public Works	Tony Reid

The City of Valparaiso has a safety committee that meets monthly to discuss safety related topics. Each department is represented at the monthly meetings as is a representative from the city's workers compensation plan carrier.

Corrective Action

In the event of an environmental emergency the department responsible will take corrective action in accordance with standard operating procedures following state and federal guidelines as applicable.

All environmental emergency corrective actions will be properly documented and the records will be stored within the applicable department for future reference.

The department head for the responding department will review all emergencies with departmental supervisors at their weekly staff meeting. During these meetings effectiveness of emergency response procedures will be critiqued and amended as needed.

Employee Training

Departments are responsible for employee training on environmental awareness, potential environmental hazards and emergency responses. All departments are required to maintain internal training records on all employees.

The head of every department within the city, as well as key supervisors, have received certifications for FEMA's Emergency Management Institute's ICS-300 (Expanding Incidents) and ICS-400 (Advanced ICS Command and General Staff-Complex Incidents). Emergency response chain of command will be activated and maintained as the situation warrants.

V. DOCUMENT CONTROL

Document Management

All Quality of Life Plan documents, procedures and records will be kept and maintained at Valparaiso Public Works Department under the supervision of the stakeholder committee leader Bill Oeding. As such only the stakeholder committee leader or his designated representative will have access to edit documents.

Access to view Quality of Life Plan documents is unrestricted and printed copies are not controlled.

Document Development

Any revisions to the Quality of Life Plan document may be addressed by any employee through the chain of command and via their respective departmental representative to the stakeholder committee. Upon receiving recommendations from a stakeholder committee member, the committee will determine the best course of action and make recommendations in accordance with the best interests of the city.

Corrective Action (Document)

Stakeholder committee members will be responsible for identifying environmental and pollution issues within their respective departments, particularly when municipal services or processes are modified or developed. Corrective action needed for ongoing environmental planning as it relates to new or modified services will be brought to the committee throughout the year as such situations arise. The committee will then evaluate the environmental impacts associated with these new and/or existing processes and services during the annual audit of the Quality of Life Plan. In addition, the committee will be responsible for making revisions to the Quality of Life Plan and its associated documents as needed. Any changes to the plan between annual audits will be denoted in *italics* and will be made permanent in the plan at the audit. An updated version of the plan will be promulgated after each audit.

The stakeholder committee will make recommendations to the respective department on any Quality of Life Plan objective being found deficient or not meeting expectations, however the final determination on corrective action must be made within the department.

The stakeholder committee leader or his designated representative is responsible for making corrections and revisions to the Quality of Life Plan and associated documentation.

Archiving Documents

Should the Quality of Life Plan be amended in any way, all changes shall occur electronically within the Public Works Department and upgraded documents will be forwarded to all stakeholder committee members. All previous revisions of the document will be stored electronically at Valparaiso Public Works with the version date printed on the cover page of the document.

All associated documentation will be updated and marked accordingly.

VI. RECORD KEEPING

Tracking and Indexing Records

All records (e.g. permits) will be maintained, tracked and stored within their respective departments.

Legal and Regulatory Requirements

Environmental legal and regulatory requirements are determined within each individual department. Any changes to requirements will be promulgated by the department head

responsible for instituting the change. Open communication with the community will be maintained at all times to ensure exchange of pertinent information.

Each department will maintain current legal requirements in accordance with industry standards as necessary through a variety of sources, these include (but are not limited to) trade associations, boards, consultants, professional organizations, etc. The determination of required sources will be made by the respective department head and his staff.

VII. COMMUNICATION

Internal Communication

Internal communications will be initiated by the stakeholder committee leader via departmental chain of command and will encompass the initiatives set forth by the stakeholder committee and reflected within this document.

Inter-departmental communications should originate at the bi-weekly leadership meetings conducted by all department heads. All relevant information can be communicated within departments at departmental weekly staff meetings.

External Communications

Communications with residents and the business community will be conducted via; the city's webpage, the Chamber of Commerce, city council meetings, press releases, reverse 911 calls, and flyers connected to the city's monthly utility bill.

VIII. MONITORING AND PROGRESS REVIEW

Internal Audit

The stakeholder committee will be responsible for tracking and reporting on the progress of each initiative incorporated within the Quality of Life Plan. Quarterly meetings will be conducted to report on the progress of each initiative with audits being conducted semi-annually. The stakeholder committee leader will generate a written report documenting all findings and/or resolutions determined necessary by the stakeholder committee.

The stakeholder committee leader, or his designated representative, is responsible for ensuring all Quality of Life Plan deficiencies found during an audit are addressed. Audit results will be stored within the Public Works department and copies will be issued to all stakeholder committee members.

IX. COMMUNITY AND BUSINESS OUTREACH

Environmental Performance

All issues related to environmental performance, including objective and target progress, will be conveyed to the public via the various external communications methods cited above.

APPENDICES

Appendix A: Mission Statement adopted through Executive Order



166 Lincolnway - Valparaiso, Indiana 46383 Phone: (219) 462-1161 - Fax: (219) 464-4273 www.valpo.us

The City of Valparaiso and its citizens are dedicated to enhancing the quality of life for members of the community by committing to:

Compliance with requirements and voluntary commitments.

Pollution prevention.

Continuous environmental improvement.

Sharing environmental decisions and performance information with the community.

Energy and resource efficiency of local government.

Community education.

In keeping with the high standards established by Indiana Department of Environmental Management's CLEAN (Comprehensive Local Environmental Action Network) COMMUNITY CHALLENGE, these ideas are hereby adopted as an executive order.

Jon Costas, Mayor

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Appendix B:	Prioritized Li	st of Aspects w	ith Ranking C	riteria	

Aspects AIR	Degree of Impact on Environment	Natural Resource Depletion	Releases to Air, Land, Water	Opportunity to Reduce Waste, Emissions, or Releases	Significant?
Aerosol cans	3	2	3	2	10
Air emissions	4	4	3	2	13
Dust and paint chips from sandblasting	2	1	1	1	5
Emissions from equipment use	3	4	3	2	12
Evaporative loss	2	2	1	1	6
Fire	2	4	3	1	10
Freon	1	1	1	1	4
Fuel use and air emissions	2	3	3	2	10
Fugitive emissions	3	3	2	2	10
Painting street lights and other fixtures	2	2	2	1	7
Vehicle impacts due to traffic flow	3	3	3	2	11

Aspects Hazardous Material	Degree of Impact on Environment	Natural Resource Depletion	Releases to Air, Land, Water	Opportunity to Reduce Waste, Emissions, or Releases	Significant?
Absorbents and hazardous waste from clean up	2	1	3	2	8
Adhesives and solvents	2	1	3	2	8
Aerosol cans	2	2	3	2	9
Antifreeze	2	1	1	2	6
Arsenic-containing lumber	2	1	1	1	5
Asbestos floor tiles, mastic, ceiling tiles, pipe wrap, siding, and flashing	2	1	2	1	6
Chemical cleaner	2	1	2	2	7
Chemical spills	2	1	3	2	8
Chemical waste	2	1	3	2	8
Cleaners for paint equipment, asphalt trucks, or garage surfaces	2	2	3	2	9
Contaminated tools, rags, or paper towels	2	2	2	1	7
Electronic waste (computers and televisions)	2	3	1	1	7
Fertilizers	3	3	3	2	11
Fluorescent lights	3	3	2	2	10
Grease rags, lime, and chemicals	2	2	2	2	8
Lead pipes and solder	2	1	1	1	5
Lead-based paints	2	1	1	1	5

Lead-containing dust, sand, or chips	2	1	1	1	5
Mercury-containing equipment	2	3	2	3	10
Non-empty, no longer functional aerosol cans	2	3	2	2	9
Non-latex paints and stains	2	3	2	2	9
Oil based paints	2	3	2	2	9
Paints and stains	2	3	2	2	9
Polychlorinated biphenyl (PCB)-containing ballasts	2	3	2	2	9
Polychlorinated biphenyl (PCB)-containing transformers and capacitors	2	3	2	1	8
Rechargeable batteries (Nickel cadmium and Lithium)	2	3	2	1	8
Solvents and paints	2	3	2	2	9
Spilled or overused chemicals	2	3	3	2	10
Stored new and used solvents and cleaners	2	3	1	1	7
Surface preparation and paint	2	2	2	1	7
Waste agrochemicals (mis-mixed, excess mixed product, mis-stored, rinsate from cleaning equipment and empty containers)	2	3	3	2	10
Aspects				Opportunity	
Water	Degree of	Natural	Releases to Air,	to Reduce	6: ::: .0
	Impact on Environment	Resource Depletion	Land, Water	Waste, Emissions, or Releases	Significant?
Abandoned chemicals			•	Emissions,	Significant?
Abandoned chemicals Agrochemical contaminated rinsate	Environment	Depletion	Water	Emissions,	
	Environment 2	Depletion 3	Water 3	Emissions, or Releases	9
Agrochemical contaminated rinsate	Environment 2 2	Depletion 3	Water 3	Emissions, or Releases	9
Agrochemical contaminated rinsate Chemical spills	Environment 2 2 4	Depletion 3 3 3	Water 3 3 4	Emissions, or Releases 1 2 2	9 10 13
Agrochemical contaminated rinsate Chemical spills Chemical use	Environment 2 2 4 2	Depletion 3 3 3 3 3	3 3 4 3	Emissions, or Releases 1 2 2 2	9 10 13 10
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers)	Environment 2 2 4 2 2 2	Depletion 3 3 3 3 2	3 3 4 3 2	Emissions, or Releases 1 2 2 2 2	9 10 13 10 8
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow	Environment 2 2 4 2 2 2 2 2 2 2	3 3 3 3 2 2	3 3 4 3 2 2	Emissions, or Releases 1 2 2 2 2 1	9 10 13 10 8 7
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels	Environment 2 2 4 2 2 2 2 2 2 2 2	3 3 3 3 2 2 2	Water 3 3 4 3 2 2 2	Emissions, or Releases 1 2 2 2 1 1 1	9 10 13 10 8 7 7
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater	2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 2 2 2 2 2	3 3 4 3 2 2 2 2	Emissions, or Releases 1 2 2 2 1 1 1 2	9 10 13 10 8 7 7
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater Debris containing lead-based paint Dust from sanding lead-containing paints Empty containers, packaging, and used personal protective equipment	2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 2 2 2 2 2 2	3 3 4 3 2 2 2 3 3 2	Emissions, or Releases 1 2 2 2 1 1 1 2 1	9 10 13 10 8 7 7 10
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater Debris containing lead-based paint Dust from sanding lead-containing paints Empty containers, packaging, and used personal protective equipment Feces from Canadian geese	2 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Depletion	3 3 4 3 2 2 2 3 2 1 4	Emissions, or Releases 1 2 2 2 1 1 1 2 1 1 1	9 10 13 10 8 7 7 10 7
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater Debris containing lead-based paint Dust from sanding lead-containing paints Empty containers, packaging, and used personal protective equipment	2 2 2 4 2 2 2 2 2 2 2 2 2	Depletion 3 3 3 3 2 2 2 2 2 1	Water 3 3 4 3 2 2 2 2 1	Emissions, or Releases 1 2 2 2 1 1 1 1 1 1	9 10 13 10 8 7 7 10 7 7 5
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater Debris containing lead-based paint Dust from sanding lead-containing paints Empty containers, packaging, and used personal protective equipment Feces from Canadian geese Ferric chloride spill Fertilizer or pesticide contaminated runoff	2 2 2 4 2 2 2 2 2 2 2 2 2 2	Depletion	3 3 4 3 2 2 2 3 2 1 4	Emissions, or Releases 1 2 2 2 1 1 1 1 2 1 3	9 10 13 10 8 7 7 10 7 7 5
Agrochemical contaminated rinsate Chemical spills Chemical use Cleaning chemicals (sanitizers) Contaminated snow Contaminated tools, rags, or paper towels Contaminated wastewater Debris containing lead-based paint Dust from sanding lead-containing paints Empty containers, packaging, and used personal protective equipment Feces from Canadian geese Ferric chloride spill	2 2 4 2 2 2 2 2 2 2 2 2 2 1 1	Depletion 3 3 3 3 2 2 2 2 1 1 2 2	Water 3 3 4 3 2 2 2 2 1 1 4 2	Emissions, or Releases 1 2 2 2 2 1 1 1 1 3 1	9 10 13 10 8 7 7 10 7 5

Flushing system	2	2	2	1	7
Fuel leak from tank or appurtenances	3	3	3	2	11
Infiltration into sewer lines	3	3	3	3	12
Infiltration into water lines	2	2	2	2	8
Leachate from treated lumber	2	2	2	1	7
Lead-containing dust, sand, or chips	2	1	1	1	5
Leaking septic tanks and fields	2	2	2	1	7
Leaks from equipment	2	2	2	1	7
Paint removal and new paint	1	1	1	1	4
Pesticides and fertilizers	3	3	3	3	12
Polychlorinated biphenyl (PCB)-containing transformers and capacitors	2	2	2	2	8
Potential backflow or cross connections	2	2	2	2	8
Release from sewer lines	3	3	3	3	12
Salt or chemical for ice control	4	4	4	2	14
Sediment from flushing lines or cleaning and unclogging sewers	1	1	1	1	4
Sediment loaded wastewater	3	3	3	3	12
Septic	2	2	2	2	8
Sludge contaminated with regulated metals (Cadmium, Copper, Lead, Mercury)	2	2	2	2	8
Soil erosion	3	3	3	2	11
Spills or overfills	2	3	3	2	10
Spills, leaks, and improperly applied product	2	3	3	2	10
Storm water runoff	3	3	3	2	11
Underground storage tank and above ground storage tank for fuel	1	1	1	1	4
Vehicle leaks and operating condition	2	2	1	1	6
Wastewater generated	3	3	3	2	11
Aspects			Delegage	Opportunity	
Materials	Degree of Impact on Environment	Natural Resource Depletion	Releases to Air, Land, Water	to Reduce Waste, Emissions, or Releases	Significant?
Asphalt	2	2	2	1	7
Carpets, tiles, and wood	1	2	2	1	6
Empty containers, packaging, paper towels, and personal protective equipment	1	3	2	1	7
Fuel use	2	3	3	2	10
Grass clippings and leaves	2	1	2	2	7

Ink for printers	3	2	1	1	7
Leaves	2	1	2	2	7
Light bulbs and ballasts	3	2	2	2	9
Miscellaneous paper, plastic, metal, white-out, and packing materials	2	3	1	1	7
New fluorescent and halogen lights	3	2	1	1	7
New tires	3	3	1	1	8
Paper use	2	3	2	2	9
Release from water lines	3	3	1	1	8
Toner cartridges	3	2	1	1	7
Used oil filters	1	2	2	2	7
Used tires	1	2	2	2	7
Waste antifreeze	1	1	1	2	5
Waste cans, brushes, and tape	1	1	1	1	4
Waste concrete or brick	2	2	2	2	8
Waste fluorescent and halogen lights	3	2	2	2	9
Waste lead-acid batteries	3	2	2	2	9
Waste Polychlorinated biphenyl (PCB) ballasts	3	2	2	2	9
Water use	3	3	2	2	10
Aspects				:I	
Other	Degree of Impact on Environment	Natural Resource Depletion	Releases to Air, Land, Water	Opportunity to Reduce Waste, Emissions, or Releases	Significant?
	Impact on	Resource	to Air, Land,	to Reduce Waste, Emissions,	Significant?
Other	Impact on Environment	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases	
Other Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients	Impact on Environment	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases	6
Other Carcasses Clearing land	Impact on Environment 2 3 1 2	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases	6 9
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste	Impact on Environment 2 3 1 2 3	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases	6 9 4
Other Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze	Impact on Environment 2 3 1 2 3 3 3	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases 1 1 2	6 9 4 6
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations	Impact on Environment 2 3 1 2 3 3 3 3	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 1	6 9 4 6 7 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use	Impact on Environment 2 3 1 2 3 3 3	Resource Depletion	to Air, Land, Water	to Reduce Waste, Emissions, or Releases 1 1 2 2 1	6 9 4 6 7 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas	Impact on Environment 2 3 1 2 3 3 3 3 3 2	Resource Depletion	to Air, Land, Water 2 2 1 1 1 2 2 2 2	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 1	6 9 4 6 7 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter	Impact on Environment 2 3 1 2 3 3 3 3 3 3 3 3 3 3 3	Resource Depletion	to Air, Land, Water 2 2 1 1 1 2 2 2 2 2 2 2 2 2 2 2	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 2 1 1 1 1 1 1	6 9 4 6 7 8 7 10 7
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter Increased impermeable surface	Impact on Environment 2 3 3 3 3 3 3 3 3 4 3 3	Resource Depletion 1 3 1 1 1 1 3 2 2 2 3	to Air, Land, Water 2 2 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	6 9 4 6 7 8 7 10 7 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter Increased impermeable surface Labeling and signage	Impact on Environment 2 3 3 3 3 3 3 3 3 4 5 5 5 5 5 5 5 5 5	Resource Depletion 1 3 1 1 1 3 1 2 2 3 2 2	to Air, Land, Water 2 2 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	6 9 4 6 7 8 7 10 7 8 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter Increased impermeable surface Labeling and signage Pesticide and rodenticide	Impact on Environment 2 3 3 3 3 3 3 3 3 4 3 3	Resource Depletion 1 3 1 1 1 1 3 2 2 2 3 2 3 3	to Air, Land, Water 2 2 1 1 1 2 2 2 2 1 1 3	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 1 1 2 1 1 2 1 1 2 1 2 1 1 2 1 2 1 1 2 2 1 1 1 2 2 2 1 1 2	6 9 4 6 7 8 7 10 7 8 8 8 5
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter Increased impermeable surface Labeling and signage Pesticide and rodenticide Pesticide drift or overspray	Impact on Environment 2 3 3 3 3 3 3 3 3 4 5 5 5 5 5 5 5 5 5	Resource Depletion 1 3 1 1 1 3 1 2 2 3 2 2	to Air, Land, Water 2 2 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	6 9 4 6 7 8 7 10 7 8 8
Carcasses Clearing land Contaminant-free sludge that is a rich organic nutrients Contamination of oil and antifreeze Coordinate departmental efforts and minimize waste Disturb native flora and fauna Dust, noise, and vibrations Electricity use Fire from controlled burns in natural areas Fishing line, nets, and litter Increased impermeable surface Labeling and signage Pesticide and rodenticide	Impact on Environment 2 3 3 3 3 3 3 3 3 4 3 3	Resource Depletion 1 3 1 1 1 1 3 2 2 2 3 2 3 3	to Air, Land, Water 2 2 1 1 1 2 2 2 2 1 1 3	to Reduce Waste, Emissions, or Releases 1 1 2 2 1 1 1 1 2 1 1 2 1 1 2 1 2 1 1 2 1 2 1 1 2 2 1 1 1 2 2 2 1 1 2	6 9 4 6 7 8 7 10 7 8 8 8

Definitions of Ratings

Degree of Impact on Environment

- 4 = Serious (likely to result in severe or widespread damage to human health or the environment)
- 3 = Moderate (may affect resources beyond the property line, correction will take planning and resources)
- 2 = Minor (may be self correcting or corrected easily and quickly with minimal time, effort, impact, and cost)
- 1 = No impact (unlikely to have an adverse impact on human health or the environment)

Natural Resource Depletion

- 4 = Serious (likely to result in severe or widespread natural resource depletion)
- 3 = Moderate (likely to result in moderate natural resource depletion)
- 2 = Minor (likely to result in minor natural resource depletion)
- 1 = No impact (unlikely to have an adverse impact on human health or the environment)

Releases to Air, Land, Water

- 4 = Serious (likely to result in severe or widespread releases to air, land, water)
- 3 = Moderate (may affect resources beyond the property line, correction will take planning and resources)
- 2 = Minor (may be self correcting or corrected easily and quickly with minimal time, effort, impact, and cost)
- 1 = No impact (unlikely to release to air, land, water)

Opportunity to Reduce Waste, Emissions, or Releases

- 3 = High opportunity to reduce waste, emissions, or releases
- 2 = Medium opportunity to reduce waste, emissions, or releases
- 1 = Low opportunity to reduce waste, emissions, or releases

Appendix C: Five Environmental Initiatives

Objective 1: Municipal Solid Waste Diversion

Background: The City of Valparaiso is currently running a MSW diversion rating of 49.26% through its recycling efforts with a recycling participation rate of 63.80%. The environmental impacts for these goals being every ton of material that is recycled, less trash is going to landfills and more of the planet's resources are being preserved. The higher the participation rate, the more materials are recycled.

Aspect: Solid Waste

Impact: Decreased landfill life and depletion of natural resources

Objective:

- -Increase the municipal solid waste (MSW) diversion of Valparaiso's residents, business community, and City Departments
- -Increase the residential and business recycling participation rate

Target:

- -Increase the municipal solid waste (MSW) diversion of Valparaiso's residents, business community, and City Departments to 70% by January 2011.
- -Increase the residential and business recycling participation rate to 75% by January 2011.

Legal Requirements: Universal waste rules apply. Since the City does not collect household hazardous waste, there are no legal requirements regarding hazardous waste.

ACTION PLAN	TIMELINE	PERSON (DEPARTMENT) RESPONSIBLE	PARTNERING DEPARTMENTS	PERFORMANCE MEASURES
1.1 Collect baseline data Diversion rate baseline collected from 2007 Participation rate baseline collected from 2008	Complete by November 1, 2008	Bill Oeding, Director of Valparaiso Public Works		Initial participation rate: 63.80% Initial diversion rate: 49.26%
1.2 Issue larger capacity recycling containers	-	-		
1.2 (a) Initial issue of containers	Complete by May 20, 2008	Public Works	IDEM	39% of the city's 8,000 households covered by initial issue
1.2 (b) Second round issue	Complete by November 1, 2010	Public Works		Total of 60% of the city's households covered after second round issue
1.3 Establish a business recycling program		•	•	•
1.3 (a) Establish baseline information by conducting an initial "waste survey" to evaluate overall waste management practices within Valparaiso's business community.	Complete and distribute survey by July 1, 2009 Establish baseline data by December 31, 2009	Therese Davis (RWRD)	Bill Oeding (Public Works) Valparaiso Chamber of Commerce	Create a system for tracking data

1.3 (b) Independent business "waste reviews" will evaluate waste disposal techniques and allow the city to suggest methods for reducing waste and offer individual businesses an outlet to dispose of their recyclables at no cost.	Complete by November 2009	Therese Davis (RWRD)	Bill Oeding (Public Works) Valparaiso Chamber of Commerce	Data from the waste reviews will be disseminated to all participating businesses through the Chamber of Commerce
1.3 (c) Contact larger apartment complexes throughout the community to encourage them to request recycling services through their respective trash handlers. This will, in turn, reduce their trash disposal costs by diminishing their trash volumes.	Complete by November 2009	Bill Oeding (Public Works)		
1.4 Consolidate trash and recycling routes				
1.4 (a) Allocation of funds and purchase of equipment.	Complete by June 30, 2010	Bill Oeding (Public Works)	City Administration, City Council	Purchase of at least one additional recycling truck
1.5 Advertising/public relations campaign				
1.5 (a) Partner with Valparaiso's Chamber of Commerce to advertise services in their monthly e-newsletter.	Complete by January 2011	Bill Oeding (Public Works)	Valparaiso Chamber of Commerce.	
1.5 (b) Draft and promulgate quarterly flyers for inclusion into utility bill.	Initiate by January 2009 (Ongoing)	Bill Oeding (Public Works)	Valparaiso City Utilities	
1.5 (c) Conduct an elementary school recycling education program.	Initiate 08 September 2008 (ongoing)	Bill Oeding (Public Works)	Therese Davis (RWDR) DR Vrabel (Valparaiso Public Schools)	
1.6 Ordinance enforcement	_			
1.6 (a) Initiate city-wide ordinance enforcement.	Complete by June 20, 2010	Vicki Thrasher (Valparaiso Code Enforcement)	Bill Oeding (Public Works) Valparaiso Police Department, City Administration	
1.7 Recycling irregular items				
1.7 (a) Establish criteria for material measurement. Collect baseline data starting with 2008 totals.	Complete by December 31, 2008.	Tony Reid (Public Works)	Steve Dolak (RWRD)	Create a system for tracking data
1.7 (b) Monitor the collection and volumes (weights) of materials collected.	Ongoing	Tony Reid (Public Works)	Steve Dolak (RWRD)	Compare annual tonnages to established baseline.
1.8 Recycle plastic bags				
1.8 (a) Establish baseline data	December 31, 2008	Bill Oeding (Public Works)		Create a system for tracking data

1.8 (b) Establish plastic bag collection points	December	Bill Oeding (Public	Valparaiso Jaycees	-Number of collection
and issue plastic bag collection toters to drop	2010	Works)		sites
off sites. Target to establish 25-30 business				-Average weight of plastic
drop off sites.				bags collected at drop off
				sites

Objective 2: Fluorescent and Mercury Containing Bulb Recycling Initiative

Background: Compact fluorescent light bulbs are far more energy efficient than incandescent bulbs. However, fluorescent bulbs and tubes, as well as other commonly used bulbs, contain mercury and should not be disposed of with regular trash when they burn out. Mercury is a heavy metal that can be hazardous to human health and the environment. Mercury can easily evaporate, travel long distances in the atmosphere, fall to the soil, and into our water resources with precipitation. One broken fluorescent bulb can contaminate 7,000 gallons of water with mercury.

Aspect: Used fluorescent bulbs

Impact: Contaminate surface water, groundwater, and soil

Objective: Institute a fluorescent bulb recycling program for municipal departments

Target: Recycle 100% of municipally generated fluorescent and mercury containing bulbs by January 2010

Legal Requirements: Universal Waste Rule

ACTION PLAN	TIMELINE	PERSON (DEPARTMENT) RESPONSIBLE	PARTNERING DEPARTMENTS	PERFORMANCE MEASURES
2.1 Collect baseline data on the number of fluorescent bulbs used/purchased/replaced by the City from June 2008 to June 2009	Historical and present use data will be collected/estimated by June 2009.	Bill Oeding, Public Works	City Utilities Parks and Recreation Recycle and Waste Reduction District of Porter County	-Create system for tracking data
2.2 Determine which service will be used for bulb recycling and work with them to establish logistics	June 2009	Bill Oeding, Public Works	Stakeholder committee	Cost analysis
2.2 Establish collection points for fluorescent bulbs and mercury containing bulbs at municipal facilities	Initial collection points acquired by January 2009	Bill Oeding, Public Works	City Utilities Parks and Recreation Recycle and Waste Reduction District of Porter County	-Fluorescent bulb recycling available for all municipal departments
2.3 Initiate individual department bulb disposal programs	Completion by June 2009	City Hall, Public Works, City Utilities, Parks, Police and Fire	City wide department participation	-Annual comparisons after initial assessments are completed -Percentage of bulbs

				recycled
2.4 Education of city employees regarding the fluorescent and mercury containing bulb recycling program through departmental bulb recycling	Ongoing	City Hall, Public Works, City Utilities, Parks, Police and Fire	City wide department participation	-Training events held
training programs		1 once and 1 ne		

Objective 3: Storm Water Management

Background: In broadening the scope of Valparaiso's MS4 program, we would like to expand our involvement in managing the guality and quantity of storm water runoff within the City of Valparaiso. The involvement of the business community, City Departments, and Valparaiso residents will be crucial in the promotion and implementation of this program.

Aspect: Storm water management

Impact: Contaminates groundwater, surface water, natural stream habitats, and promotes soil erosion and stream bank degradation

Objective:

- -To promote and educate on the benefits of using rain barrels for lawn and garden watering as a water quantity Best Management Practice (BMP) and document the number of rain barrels distributed.
- -To promote and educate local businesses, residents, and builders/developers on the benefits of rain gardens as both a water quantity and quality BMP by treating storm water runoff and enhancing groundwater percolation. The City will spearhead the initiative by constructing rain gardens on city property and by encouraging the installation of rain gardens on private lands.

Target:

- -Hold at least one workshop to educate residents on rain barrels by December 2009.
- -Construct at least one rain garden on city property by December 2010.
- -Hold at least one workshop to educate local businesses, residents, and builders/developers on rain gardens by December 2009.

Legal Requirements: This program will provide water quality and quantity measures beyond those outlined in the City of Valnaraiso's MS4 program

ACTION PLAN	TIMELINE	PERSON (DEPARTMENT) RESPONSIBLE	PARTNERING DEPARTMENTS	PERFORMANCE MEASURES
3.1 Rain barrels	•			1
3.1 (a) Establish baseline number of rain barrels within City limits	End of 2008	Nate McGinley (Engineering Dept.)	N/A	-Date baseline established -Create a system to track data
3.1 (b) Provide at least one workshop to educate on the benefits of rain barrels and distribute rain barrels to workshop participants	2009	Matthew Kras (Engineering Dept.)	Valparaiso City Utilities, Save the Dunes Conservation Fund	-Number of workshop attendees -Number of rain barrels distributed

3.1 (c) Determine the feasibility of collecting follow-up information from workshop attendees to evaluate the success of the workshop. Are the rain barrels being used? How much water was collected in the rain barrels?	2010	Matthew Kras (Engineering Dept.)	Valparaiso City Utilities, Save the Dunes Conservation Fund	-Response rate -Number of rain barrels being used -Gallons of water collected
3.2 Rain gardens			•	
3.2 (a) Establish baseline number of rain gardens within City limits	End of 2008	Nate McGinley (Engineering Dept.)	N/A	-Date baseline established -Create a system to track data
3.2 (b) Provide a workshop to educate on the benefits of rain gardens. The City of Valparaiso may host a workshop on its own or partner with other agencies on this event.	2009	Matthew Kras N/A (Engineering Dept.)		-Number of workshop attendees
3.2 (c) Evaluate the workshop to determine if future workshops should be held, at what frequency, how they could be improved, or what methods are best for future outreach.	2010	Matthew Kras (Engineering Dept.)	N/A	N/A
3.2 (d) Investigate best sites for proposing a new rain garden on city property	2009	Matthew Kras (Engineering Dept.)	N/A	Number of potential sites for a rain garden
3.2 (e) Pick best site and design rain garden	2009/2010	Matthew Kras (Engineering Dept.)	Valparaiso Parks Department	Rain garden design
3.2 (f) Construct rain garden	2010	Matthew Kras (Engineering Dept.)	Valparaiso City Utilities, Parks Department, and Public Works Department	Completed rain garden
3.2 (g) Continue design and construction of rain gardens at appropriate city sites	2010and ongoing	Matthew Kras (Engineering Dept.)	Valparaiso Parks Department	Construction of additional rain gardens

Objective 4: Sustainable Landscape Initiative

Background: Throughout the United States, non-native invasive species have become an overwhelming problem resulting in impacts to the natural environment and managed landscapes. Invasive species typically possess certain traits that give them an advantage over most native species. The most common traits include the production of many offspring, early and rapid development, and adaptability and high tolerance to many environmental conditions. These traits allow invasive species to be highly competitive and, in many cases, suppress native species. Studies show that invasive plants can reduce natural diversity, impact endangered or threatened species, reduce wildlife habitat, create water quality impacts, stress and reduce forest and agricultural crop production, damage personal property, and cause health problems. Invasive species began arriving in North America in the midto-late 1700s by various means. Many were brought here for ornamental uses, erosion control, or to provide for wildlife habitat. Others arrived inadvertently through international travel and commerce.

City staff has experience with removing weed trees such as White Mulberry and Ailanthus. Park staff has had to pursue removing ornamentals such as flowering pears, exotic honeysuckle bushes and Norway maple trees which have established populations in adjacent woodlands. The City Horticulture staff is currently responding to this situation by discontinuing the use of most non-native species on city landscape projects.

Aspect: Plant diversity/invasive species in landscape plants

Impact: Loss of species diversity, loss of native species within the city

Objective: Loss of species diversity, loss of native species within the city.

Target: Developer compliance with the landscape section of the unified ordinance including municipal projects. Relative to old landscape ordinance.

Legal Requirements: New, more specific plant guidance lists will have to be provided for Valparaiso's Unified Development Ordinance as well as the Tree and Landscape Ordinance.

ACTION PLAN	TIMELINE	PERSON (DEPARTMENT) RESPONSIBLE	PARTNERING DEPARTMENTS	PERFORMANCE MEASURES
4.1 Collect baseline data define area(s) cleared of invasive trees.	2009-2010	Parks Department		Horticulture Division annual report data.
4.2 Become more aggressive in proactive removals of invasive trees such as Ailanthus and White Mulberry from city alleys and other public properties, preventing them from reproducing further.	2008-2013	Parks Department	Parks Department, Public Works Department	Tree inventory & Horticulture records
 4.3 Work with private property owners, railroads and utilities to encourage removal of Ailanthus and White Mulberry from their properties. 4.4 Education and Outreach 	2008-2013	Planning Department	Parks Department, Public Works Department	Building and Satellite Records
4.4 (a) Produce in-house educational materials to explain the importance of sustainable landscaping and the benefits of using North American plants that are available but have generally been forgotten.	Earth Day 2011	Parks Department	Save the Dunes Foundation, Valpo Utilities, Recycling and Waste Reduction District of Porter County	Demand for brochure and informal survey of nursery vendors.

Objective 5: Water Conservation Plan

Background: In August 2006, the Hardness and Capacity Study Focus Group recommended conservation planning as an important step for Valparaiso, recognizing that implementing water conservation will reduce the need for new wells (e.g., reduce the need for future capital investment). The Focus Group was unanimous in their recommendation that conservation planning and education should begin immediately. The desire to continue to be a leader in the State of Indiana (Valparaiso Water Works was the first public water supply in Indiana to complete its Wellhead Protection Program), is also a driver in developing a Water Conservation Plan to ensure sustainability that can accommodate future growth in the City of Valparaiso.

Aspect: Water Use

Impact: Depletion of natural resources, Increase in capital expenditures

Objective: Implement comprehensive public education program for municipal users. Reduce costs of municipal process water.

Target: Implement five water conservation measures indicated in the Valparaiso City Utilities Water Conservation Plan by Fall 2010.

Legal Requirements: The Valparaiso City Utilities will follow the recommendations of Indiana's Water Shortage Plan and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement/Compact in regard to water conservation.

ACTION PLAN	TIMELINE	PERSON (DEPARTMENT) RESPONSIBLE	PARTNERING DEPARTMENTS	PERFORMANCE MEASURES
5.1 Specify Conservation Planning Goals		l .		
 5.1 (a) Identify and assemble a Water Conservation Task Force that will provide input and comment throughout the development of the Water Conservation Plan. As outlined by the Environmental Protection Agency Guidelines, several areas will be investigated: Eliminating, downsizing, or postponing the need for capital projects Improving the utilization and extending the life of existing facilities Lowering variable operating costs Avoiding new source development costs Improving drought or emergency preparedness Educating customers about the value of water Improving reliability and margins of safe and dependable yields Protecting and preserving environmental resources 	Spring 2009	Valparaiso City Utilities Water Conservation Task Force	Engineering	Creation of written plan

5.2 (a) Water use forecasts are prepared to compare projected water demands with available water supplies, to determine adequacy of water supply sources, to determine the need for expanded water and wastewater distribution and treatment facilities, and to determine impacts of potential water conservation measures. In developing a Water System Profile, the following will be collected and analyzed-Water Utility Data to include: Capital plans, Water production records, Water billing records, Water sales records, Number of accounts/service connections by type, Water rates and pricing policies. Service Area Data to include: Population served, Housing characteristics, Business and employment characteristics, Major customer characteristics, Weather characteristics. 5.3 Identify Water Conservation Measures	Spring 2009	Valparaiso City Utilities	Financial	Creation of written plan
5.3 (a) Social acceptability is essential for the successful implementation of a water conservation measure, so it will be important to gauge the probable response of the community to water conservation. Customer survey research will be utilized to understand such characteristics as the public's awareness of local water resource and environmental issues, the water-using behaviors of customers, the likelihood of adoption of specific conservation measures, and the preferred modes of information and contact. The initial screening of each measure will examine technical feasibilitywhether the measure will result in a significant reduction in water use, and social acceptabilitywhether the measure will be adopted by water customers.	Spring 2009	Valparaiso City Utilities Water Conservation Task Force	Customer Service	Creation of written plan
 5.4 Analyze Benefits and Costs 5.4 (a) A benefit-cost analysis provides a screening mechanism for choosing the most efficient water conservation program measures. The types of program costs that can be considered include utility program costs, decreased utility revenue, and customer program costs. The types of benefits that can be considered include utility cost savings, program participant benefits, and system reliability. Valparaiso City Utilities will collaborate with the Umbaugh financial team in the estimation of revenue impacts of water conservation savings from the selected measures. 5.5 Develop Water Conservation Plan 	Spring 2009	Valparaiso City Utilities Water Conservation Task Force	Financial	Creation of written plan

 5.5 (a) An implementation plan for the selected conservation measures and program components will be developed by Camp Dresser & McKee Inc. and the Valparaiso City Utilities. The water conservation plan will include: Program content Definition of target populations Program incentives Custom contact modes Public involvement/education strategy Schedule implementation and duration Specification of responsible agencies Resource requirements for a defined planning horizon (including staff, materials, equipment) Evaluation plan to monitor ongoing program effectiveness 	Fall 2010	Jim Pingatore - Water Conservation Planner	Administration	Implementation of five water conservation measures indicated in the Water Conservation Plan
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